

**Office Action Summary****Application No.**

10/674,572

**Applicant(s)**

HORNG ET AL.

**Examiner**

Ljiljana (Lil) V. Ciric

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-24 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group II, readable on claims 14 through 24, in the reply filed on November 1, 2004 is acknowledged. The traversal is on the ground(s) that the restriction requirement was in error since claims 1 through 13 drawn to the invention that is Group I have already been cancelled upon filing of the instant divisional application. This is found persuasive and the restriction requirement made on October 1, 2004 is hereby withdrawn.

### *Specification*

2. The abstract of the disclosure is objected to because it fails to concisely summarize the structure of the inventive device which is claimed in the instant apparatus, instead focusing on the corresponding method which was the subject of the parent application. Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14 through 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative, indefinite, and written in a somewhat run-on fashion, thus failing to conform with current U.S. practice.

The limitation "on the buffer layer, *depositing a free layer* on which is a layer of non-magnetic material" [claim 14, lines 5-6] appears to be an attempt to recite process limitations in what otherwise appears to be an apparatus claim, thus rendering indefinite the metes and bounds of protection sought by claim 14 and claims 15 through 24 depending therefrom.

It is not clear to which element(s) the limitation “and having sloping sidewalls” as cited in line 14 of claim 14 refers.

Also with regard to base claim 14, the limitation “a second dielectric layer *over the entire device*” appearing in line 20 of the claim appears to be a double recitation of the device which is the subject of the claim and is first recited in the preamble of the claim.

Limitations including the terms “between about \_\_\_ and \_\_\_” appear in each of claims 16, and 18 through 23 and further render each of the ranges recited thereby indefinite because it is not clear whether the term “about” refers to each of the first-cited dimension and the second-cited dimension in the corresponding range, or whether it refers to the range as a whole, for example.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

#### ***Allowable Subject Matter***

5. Claims 14 through 24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

#### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (571) 272-4909.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene, can be reached at (571) 272-4930.

lvc

April 4, 2005

**LJILJANA V. CIRIC**  
**PRIMARY EXAMINER**  
**ART UNIT 3753**